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Two new species of *Siphona* Meigen (Diptera: Tachinidae) from Sardinia and Morocco

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Abstract

Two new tachinid species (Diptera: Tachinidae), *Siphona nuragica* **n. sp.** from Sardinia and *S. maroccana* **n. sp.** from Morocco, are described. Both species can be separated from other West Palaearctic *Siphona* by their wide parafacials and genae.
Keywords: Tachinidae, *Siphona*, Sardinia, Morocco.

Zusammenfassung

Zwei neue Raupenfliegen (Diptera: Tachinidae), *Siphona nuragica* **n. sp.** von Sardinien und *S. maroccana* **n. sp.** aus Marokko, werden beschreiben. Beide Arten können durch die breiten Wangen und das hohe Peristom von anderen westpaläarktischen *Siphona* unterschieden werden.

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1 Introduction

The genus *Siphona* can be easily recognized by its long and slender proboscis which is folded back in resting position and by its specialized labellar structure (compare Andersen 1996). 25 species were known from the Palaearctic region; there was only one species (*S. geniculata* De Geer, 1776) recorded from Sardinia and Morocco, see Mason et al. (2006) and Andersen (l. c., as *S. urbana*).

Recent collections in Sardinia and Morocco yielded two new species of *Siphona* with wide parafacials and high genae. At least the first character was unknown before in West Palaearctic species of the genus *Siphona* (see figures 3, 134–152 of Andersen 1996). There are two species of Nearctic distribution, *S. lurida* Reinhard, 1943 and *S. intrudens* (Curran, 1932) which have similar parafacials and genae (see fi-

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gures 20, 21, 41, 44 of O'HARA 1982), but the combination of other characters is different: *S. lurida* (which is also known from Japan) has a stronger thickened palpus with infuscate apex, three brown vittae on the thorax and weak setulae on the parafacial; *S. intrudens* has large tarsal claws and the lateral marginal bristles on syntergite 1+2 weak.

The descriptions below do not repeat the uniform characters of the well-known genus *Siphona* (cf. ANDERSEN 1982, 1996; O'HARA 1982). No preparation was made of the genitalia of the single male of *S. maroccana* n. sp. to avoid further damage of this specimen which is in bad condition, but which can easily be distinguished from other *Siphona* by its external morphology.

Measurements in the present paper follow the standards proposed by ANDERSEN (1982, fig. 1), which differ from TSCHORSNIG & HERTING (1994, fig. 10) in several respects.

Acronyms of depositories

CNBF	Insect collection of Centro Nazionale Biodiversità Forestale, Verona, Italy
MZUR	Museum of Zoology, Università degli Studi di Roma "La Sapienza", Rome, Italy
PC	Collection of P. CERRETTI, Verona, Italy
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany

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2 Description of *Siphona nuragica* n. sp.

Material

Holotype (♂). Italy, Sardinia, Medio Campidano, Villacidro, Rio Cannisoni, 375 m, UTM 32 S 0468713 4362692, 24.III.2006, leg. D. WHITMORE, M. BARDIANI, D. BIRTELE & P. CORNACCHIA (MZUR).

Paratypes. 2 ♂♂, 1 ♀, same data as holotype (MZUR, CNBF). – 1 ♀, same data, but 25.III.2006 (PC). – 1 ♂, 4 ♀♀, same island and same collectors, Carbonia-Iglesias, Iglesias, Vecchia Cartiera [= Cantoniera] Marganai, 491 m, UTM 32 S 0462272 4354677, 20.III.2006 (MZUR, SMNS). – 1 ♀, same data as before, but 23.III.2006 (MZUR). – 1 ♀, same data as before, but 25.III.2006 (MZUR).

The specimens were caught while flying slowly near shrubby vegetation (mainly *Cistus* spp.) in open areas within a large *Quercus ilex* forest ecosystem.

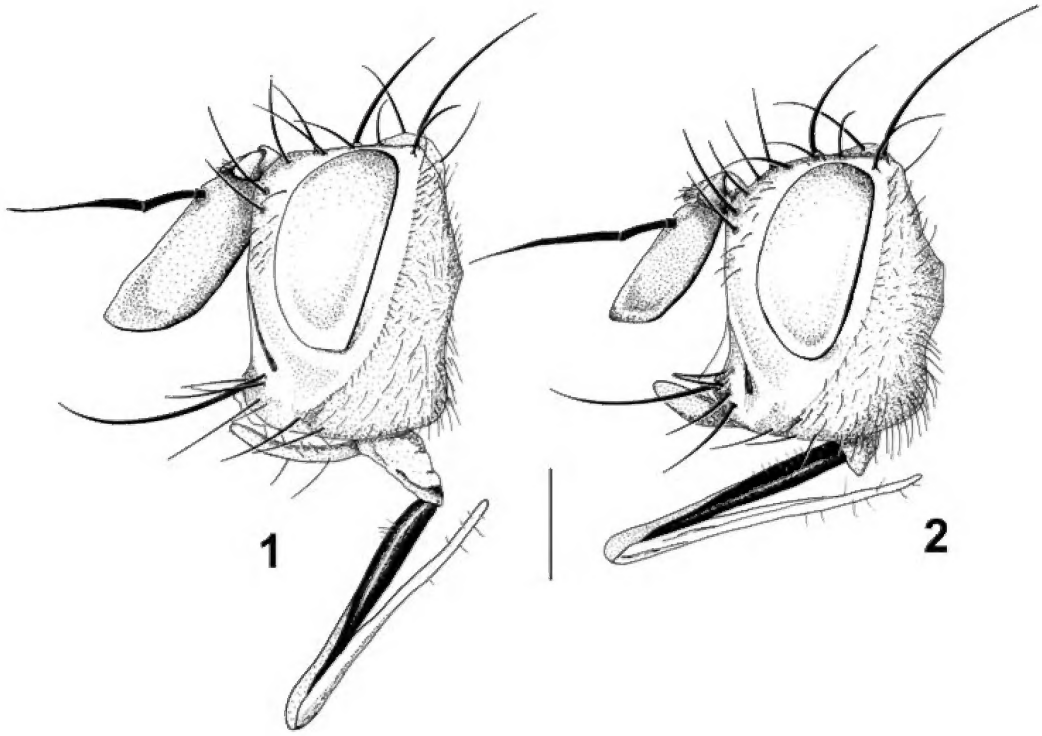
Etymology

The adjective "nuragica" indicates the ancient Bronze Age Sardinian civilization that built the well-known "Nuraghi", megalithic dwellings typical of the archaeological landscape of Sardinia.

Description

Male (statements given within square brackets refer to paratypes):

Colour: Head black; frontal vitta, gena, first and second antennal segment reddish brown, palpus yellow. Thorax black, halter reddish. Tegula brown, basicosta reddish. Legs yellow except black tarsi; fore femur darkened along its whole length dor-



Figs. 1–2. Heads of *Siphona nuragica* n. sp. – **1.** ♂. **2.** ♀. – Scale: 0.5 mm.

sally, mid and hind femora slightly darkened posterodorsally. Abdomen entirely dark in dorsal view, lateroventral sides of syntergite 1+2 and tergite 3 and ventral margin of tergite 4 reddish.

Pruinescence: Thorax in posterodorsal view with three dark vittae (between rows of acrostichal bristles and rows of dorsocentral and intra-alar bristles). Pruinescence of the abdominal tergites darker posteriorly, especially around the bases of the bristles.

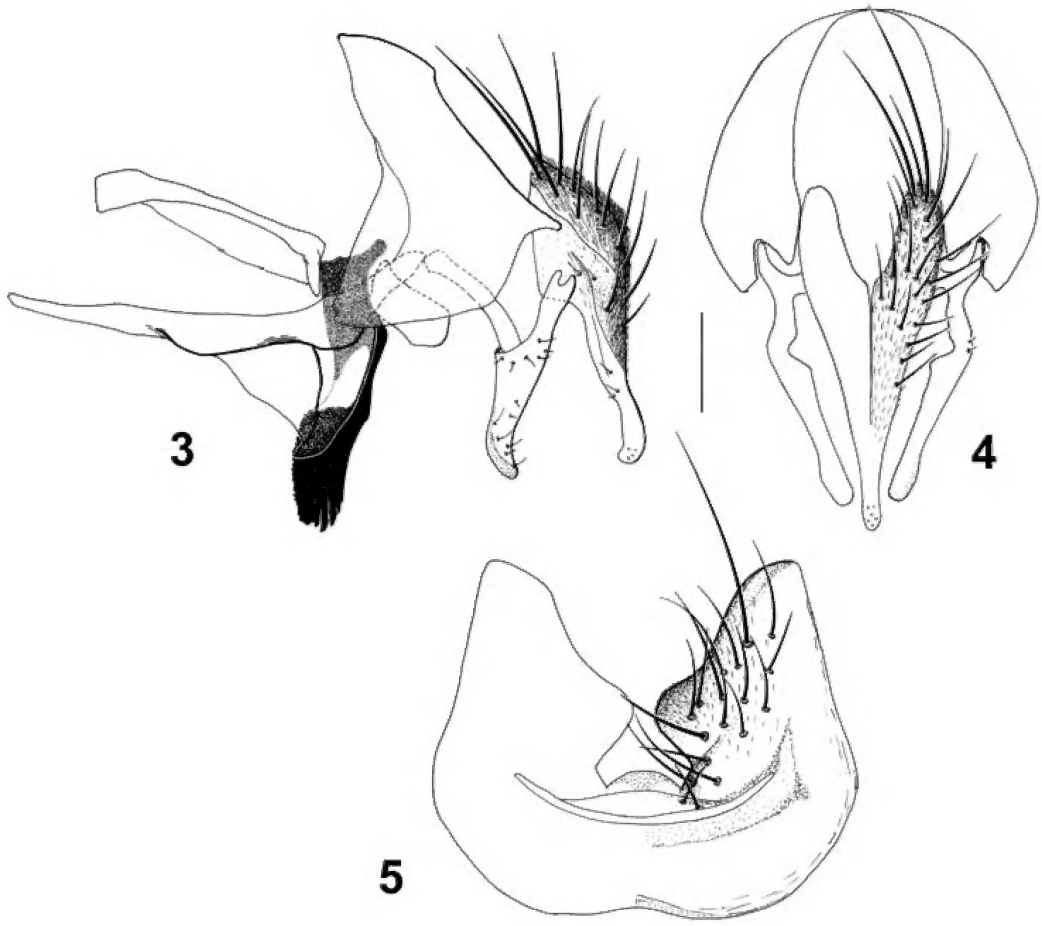
Head (Fig. 1): Face 1.6 [1.55] times length of the frons. Parafacial at midlength, when seen in profile, about $^1/_4$ [$^1/_4$–$^1/_3$] of third antennal segment in width, with 4–6 [6–8] weak setulae below the lowest frontal bristle, not reaching the lower half of parafacial. Third antennal segment subrectangular, widest in middle, 1.1 times as wide as maximum width of fore femur, 4.4 [4.0–4.5] times as long as second antennal segment, 1.6 [1.4–1.7] times as long as the frons. Second aristomere 1.5 [1.4] times as long as second antennal segment, third aristomere thickened on its basal $^1/_4$–$^2/_5$. Gena, when seen in profile, 0.35 [0.40] of vertical diameter of eye. Prementum 0.9 [0.85–1.0] times head height. Palpus 0.7 [0.7–0.8] of third antennal segment in length, with 1–3 setulae below, at its tip with the usual fine hairs.

Thorax: Prosternum with a pair of small setulae. Presutural intra-alar bristle present, strong [weak]. Three postsutural dorsocentral bristles.

Wing: Base of R_{4+5} with 6 [5–7] setulae.

Legs: Fore femur with 4–5 [3–6] posteroventral setae. Mid tibia with anterior preapical seta. Claws about half as long as fifth tarsal segment.

Abdomen: Syntergite 1+2 with strong lateral marginal bristles, without median



Figs. 3–5. Male terminalia of *Siphona nuragica* n. sp. – **3**. Epandrial complex, hypandrium, gonites and aeadeagus in lateral view. **4**. Epandrium, cerci and surstyli in posterior view. **5**. Sternite 5 in ventral view. – Scale: 0.1 mm.

marginal bristles. Tergite 3 with 4 strong marginal bristles and a small additional bristle inserted next to the lateral bristle.

Postabdomen: Sternite 5 (Fig. 5) strongly upcurved. Cerci in lateral view (Fig. 3) more or less straight, slightly hooked distally; in posterior view (Fig. 4) long and slender. Surstylus in lateral view (Fig. 3) distally slightly bent posteriorly. Postgonite (Fig. 3) sub-rectangular. Pregonite (Fig. 3) bare, sub-triangular. Aedeagus (Fig. 3): basiphallus less sclerotized than distiphallus, with a well developed basal process; epiphallus not developed; distiphallus relatively long, well sclerotized.

Body length 4.9 [4.4–4.5] mm.

Female, differing from male as follows:

Abdomen entirely dark, also ventrally. Parafacial at midlength, when seen in profile, about $^3/_5$ of third antennal segment in width (Fig. 2). Face 1.15–1.30 times length of frons. Third antennal segment 0.7–0.9 times as wide as maximum width of fore femur, 2.5–3.1 times as long as second antennal segment, 1.2–1.3 times as long as frons. Second aristomere as long as second antennal segment. Gena, when seen in profile,

0.35–0.45 times vertical diameter of eye. Palpus 1.1–1.2 times as long as third antennal segment, widened apically, nearly bare at tip.

3 Description of *Siphona maroccana* n. sp.

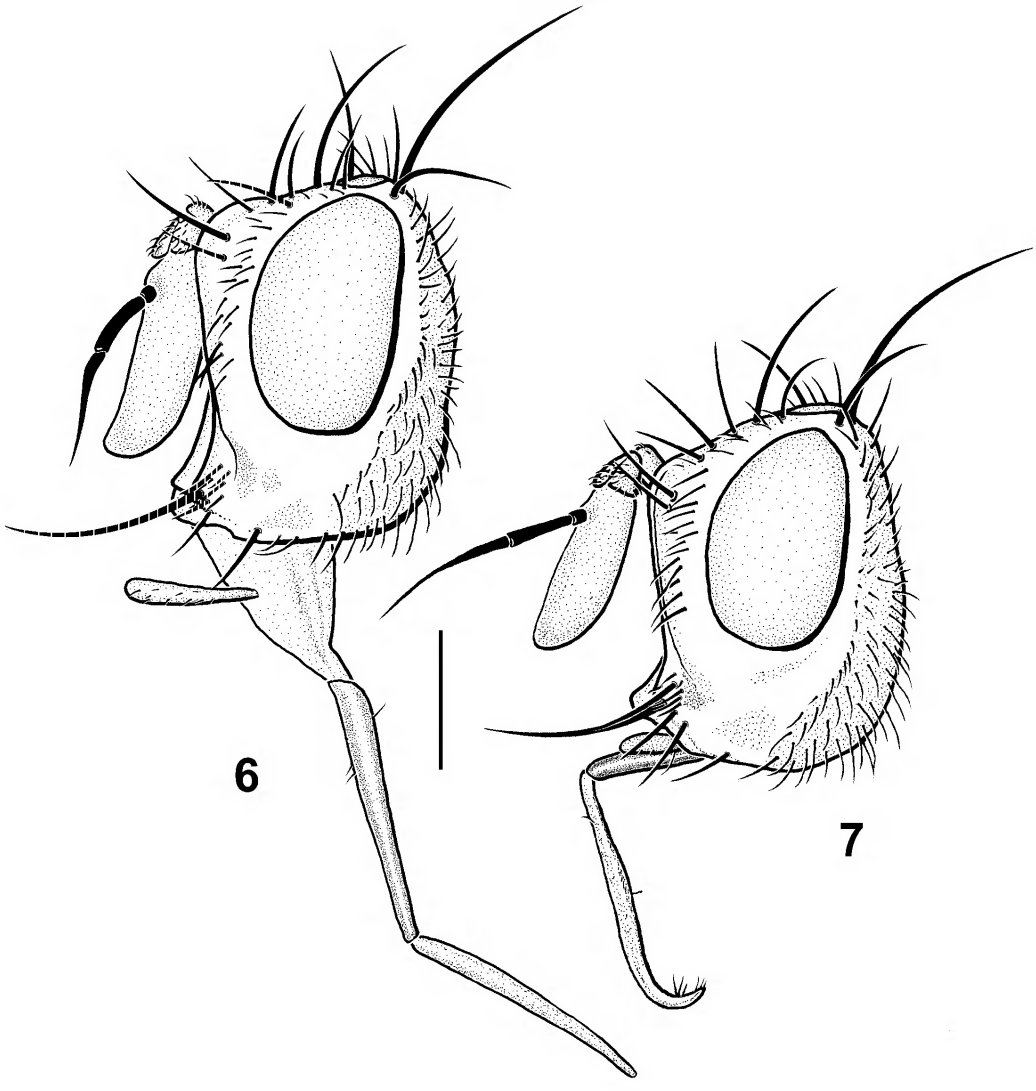
Material

Holotype (♂). Morocco, Haut Atlas, Asif Mellah, W Tizi-n-Tichka, 19.III.1997, 31°16′N 7°21′W, leg. M. HAUSER (SMNS).

Paratypes. 3 ♀♀, Morocco, Ifrane environs, Forêt de Cèdres, 33°31′N 05°06′W, 1500 m, yellow pan trap, 29.IV.1999, leg. VRABEC & VRABCOVÁ (SMNS).

Etymology

The species name is derived from the country where the type material was collected.



Figs. 6–7. Heads of *Siphona maroccana* n. sp. – **6**. ♂. **7**. ♀. – Scale: 0.5 mm.

Male:

Colour: Head black; frontal vitta, gena, first and second antennal segment and palpus yellow. Thorax black, halter yellow. Tegula reddish, basicosta yellow. Legs yellow except black tarsi; fore femur darkened along its whole length dorsally. Abdomen entirely dark, also ventrally.

Pruinescence: Dorsum of thorax without dark vittae. Pruinescence of the abdominal tergites darker around the bases of the bristles.

Head: Face 1,6 times length of the frons. Parafacial at midlength, when seen in profile, $^3/_5$ of third antennal segment in width, with 10–12 setulae, the lowermost stronger, descending slightly below upper half (Fig. 6). Third antennal segment subrectangular, widest in middle, 0.9 times as wide as maximum width of fore femur, 4.1 times as long as second antennal segment, 1.5 times as long as the frons. Second aristomere 1.4 times as long as second antennal segment, third aristomere thickened on about its basal $^2/_5$. Gena, when seen in profile, 0.4 of vertical diameter of eye. Prementum 0.8 times head height. Palpus 0.8 of third antennal segment in length, at its tip with the usual fine hairs.

Thorax: Prosternum with a pair of small setulae. Presutural intra-alar bristle present. Three postsutural dorsocentral bristles.

Wing: Base of R_{4+5} with 6 setulae.

Legs: Fore femur with 5–7 posteroventral setae. Mid tibia with anterior preapical seta. Claws about as long as 0.8 of fifth tarsal segment.

Abdomen: Syntergite 1+2 with strong lateral marginal bristles, without median marginal bristles. Tergite 3 with 4 strong marginal bristles.

Postabdomen: not dissected (see introduction).

Body length 4.7 mm.

Female, differing from male as follows:

Mid and hind femora slightly darkened posterodorsally (hind legs and most of mid legs missing in the male). Face 1.2–1.4 times length of the frons. Parafacial at midlength, when seen in profile, $^4/_5$–$^1/_1$ of third antennal segment in width (Fig. 7). Third antennal segment 0.7 times as wide as maximum width of fore femur, 3.1–3.3 times as long as second antennal segment, 1.2–1.3 times as long as the frons. Second aristomere 1.0–1.3 times as long as second antennal segment. Gena, when seen in profile, 0.5–0.6 of vertical diameter of eye. Prementum not fully visible, its estimated length 0.7 times head height. Palpus slightly wider apically than in male (length cannot be measured because the palpus is not fully visible). Prosternum bare or with a pair of small setulae. Claws about half as long as fifth tarsal segment. Body length 3.8–4.4 mm (longer in life, because the females were dried from alcohol and are not in a natural position).

4 Differential diagnosis

The two newly described species can be separated from each other and from other West Palaearctic species of *Siphona* as follows:

1 Parafacial, when seen in profile, at its narrowest point at most as wide as $^2/_5$ of the second antennal segment at its end. Gena, when seen in profile, up to 0.3 of vertical diameter of eye; if up to 0.5 (some *S. ingerae* and *S. hungarica*) then claws of males about as long as fifth tarsal segment. ..... other West Palaearctic species of *Siphona*

– Parafacial wide, at its narrowest point $^{3}/_{5}$–$^{1}/_{1}$ as wide as the second antennal segment at its end (Figs. 1–2, 6–7). Gena 0.35–0.60 of vertical diameter of eye. Male claws shorter as fifth tarsal segment. **2**

2 Parafacial, when seen in profile, $^{1}/_{4}$–$^{1}/_{3}$ of third antennal segment in male (Fig. 1), about $^{3}/_{5}$ in female (Fig. 2), with 4–8 weak setulae below the lowest frontal bristle, not reaching lower half of parafacial. Second antennal segment brown or reddish. Prementum 0.9–1.0 times head height. Dorsum of thorax in posterodorsal view with three dark vittae. Pruinescence of abdominal tergites darker posteriorly. – Male: Claws about half as long as fifth tarsal segment; lateroventral sides of tergites 2 and 3 reddish. . . . . ***Siphona nuragica* n. sp.**

– Parafacial, when seen in profile, $^{3}/_{5}$ of third antennal segment in male (Fig. 6), $^{4}/_{5}$–$^{1}/_{1}$ in female (Fig. 7), with 10–12 setulae, the lowermost stronger, descending slightly below upper half. Second antennal segment yellow. Prementum shorter, 0.7–0.8 times head height. Dorsum of thorax without dark vittae. Pruinescence of the abdominal tergites darker only around the bases of the bristles. – Male: Claws about as long as 0.8 of fifth tarsal segment; abdomen entirely dark. . . . . ***Siphona maroccana* n. sp.**

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